What is claimed is:

1. A method of managing temperature in a printer, said method comprising the steps of:

preprocessing a file into a plurality of swaths;

preprocessing each of said swaths into a plurality of cells;

calculating an estimated peak temperature for each printhead in printing each of said plurality of cells; and

printing said swath in response to said estimated peak temperature for each printhead in printing each of said cells being below a predetermined maximum temperature.

2. The method of managing temperature in a printer according to claim 1, said method comprising the further steps of:

measuring the temperature of each printhead prior to printing said swath; and

employing said measured temperature as an initial temperature in calculating said estimated peak temperature for each printhead in printing a first cell of said swath.

3. The method of managing temperature in a printer according to claim 2, said method comprising the further step of:

employing said calculated estimated peak temperature for each printhead in printing said first cell as a second initial temperature in calculating a second estimated peak temperature for each printhead in printing a second cell.

4. The method of managing temperature in a printer according to claim 1, said method further comprising the steps of:

calculating an ink drop estimate for printing each cell; and

employing said ink drop estimate for printing each cell to calculate said estimated peak temperature for each printhead in printing each cell.

5. The method of managing temperature in a printer according to claim 1, wherein said step of calculating an estimated peak temperature for each printhead in printing each of said cells includes the steps of estimating a number of ink drops required to print each cell, determining a quotient of said ink drop estimate over a constant, and adding the quotient to an initial temperature of each printhead.

6. The method of managing temperature in a printer according to claim 5, further comprising the steps of:

measuring and logging an initial temperature of each printhead prior to printing each cell of said swath;

measuring and logging a final temperature of each printhead after printing each cell of said swath;

comparing the initial temperature of each printhead to the final temperature of each printhead for each cell, and determining a maximum temperature difference of each printhead in printing each of said cells;

measuring and logging number of ink drops printed during the printing of each cell of said swath; and

determining a new constant by calculating the quotient of the number of ink drops printed over the maximum temperature difference for the cell in which the printhead had the maximum temperature difference.

7. The method of managing temperature in a printer according to claim 6, further comprising the step of:

setting said new constant as said constant in response to said new constant being within a predetermined maximum constant value and a predetermined minimum constant value.

8. The method of managing temperature in a printer according to claim 7, further comprising the step of:

setting said predetermined maximum constant value as said constant in response to said new constant equaling or exceeding said predetermined maximum constant value; and

maintaining said constant as said constant in response to said new constant equaling or falling below said predetermined minimum constant value.

9. The method of managing temperature in a printer according to claim 8, further comprising the step of:

wherein said step of calculating an estimated peak temperature for each printhead in printing each of said cells includes the steps of estimating a number of ink drops

required to print each cell, determining a quotient of said ink drop estimate over said new constant, and adding the quotient to an initial temperature of each printhead; and

printing a second swath in response to said estimated peak temperature for each printhead in printing each of said cells being below a predetermined maximum temperature.

10. The method of managing temperature in a printer according to claim 1, further comprising the step of:

dividing a pass of each printhead in printing said swath into a number of sub-passes in response to said estimated peak temperature for any printhead in printing any of said cells being greater than said predetermined maximum temperature; and

wherein a number of ink drops printed during each said sub-pass is substantially less than a number of ink drops printed during a pass.

11. The method of managing temperature in a printer according to claim 10, further comprising the step of:

calculating the number of sub-passes by determining the number of sub-passes required to maintain a predicted temperature of each printhead below said predetermined maximum temperature.

12. The method of managing temperature in a printer according to claim 11, wherein said step of calculating the number of sub-passes further comprises:

setting a density divisor to an initial number; and

recalculating said peak estimate temperature by calculating a quotient of a drop estimate over said density divisor, wherein said quotient is added to an initial temperature of said printhead at a beginning of said cell.

13. The method of managing temperature in a printer according to claim 11, wherein said step of calculating the number of sub-passes further comprises:

incrementing said density divisor by one in response to said peak estimate temperature being greater than said predetermined temperature; and

recalculating said peak estimate temperature with said incremented density divisor.

14. The method of managing temperature in a printer according to claim 10, wherein said pass dividing step comprises the further step of printing said sub-passes in a height that is substantially similar to the printing pass.

15. The method of managing temperature in a printer according to claim 10, wherein said pass dividing step comprises the further step of reducing the number of ink drops printed during each sub-pass and performing a sufficient number of sub-passes to cause said ink drops to be printed during a total of each sub-pass to substantially equal a total number of ink drops to be printed during said printing pass.

16. The method of managing temperature in a printer according to claim 10, wherein said step of dividing further comprises:

printing said number of sub-passes, wherein a recording medium is not advanced between each sub-pass of said number of sub-passes.

17. A system for managing temperature in a printer, said system comprising:

a memory;

at least one printhead, and

an adaptive thermal print swath servo ("ATPSS") module to preprocess a file stored in said memory into a plurality of swaths, each swath being further preprocessed into a plurality of cells, wherein said ATPSS module is further configured to calculate an estimated peak temperature for each printhead in printing each cell and to print said swath with said printhead in response to said estimated peak temperature for each printhead in printing each cell being below a predetermined maximum temperature.

18. The system for managing temperature in a printer according to claim 17, wherein said ATPSS module is further configured to calculate an estimated ink drop density for each cell, wherein said estimated ink drop density is utilized to calculate said estimated peak temperature.

19. The system for managing temperature in a printer according to claim 17, further comprising:

a temperature sensor, wherein said ATPSS module is further configured to measure the temperature of each printhead prior to and after printing each cell in said swath with said temperature sensor.

20. A computer readable storage medium on which is embedded one or more computer programs, said one or more computer programs implementing a method for managing temperature in a printer, said one or more computer programs comprising a set of instructions for:

preprocessing a printable file into a plurality of swaths, each swath being further preprocessed into a plurality of cells;

calculating an estimated peak temperature of at least one printhead in printing each cell; and

printing said swath in response to said estimated peak temperature for each cell being below a predetermined maximum allowed temperature.

21. The computer readable storage medium in accordance to claim 20, said one or more computer programs further comprising a set of instructions for:

calculating an estimated density for said cell, wherein said estimated density is utilized to calculate said estimated peak temperature.

22. The computer readable storage medium in accordance to claim 21, said one or more computer programs further comprising a set of instructions for:

calculating said estimated peak temperature from a sum of a product of said estimated density and a constant and an initial temperature of each printhead prior to printing each said cell.

23. The computer readable storage medium in accordance to claim 20, said one or more computer programs further comprising a set of instructions for:

dividing a printing pass of each printhead in printing said swath into a number of sub-passes in response to said estimated peak temperature for any printhead in printing any of said cells being greater than said predetermined maximum temperature; and

wherein a number of ink drops printed during each said sub-pass is substantially less than a number of ink drops printed during a pass.

24. The computer readable storage medium in accordance to claim 20, said one or more computer programs further comprising a set of instructions for:

estimating a number of ink drops required to print each cell, determining a quotient of said ink drop estimate over a constant, and adding the quotient to an initial temperature of each printhead;

measuring and logging an initial temperature of each printhead prior to printing each cell of said swath;

measuring and logging a final temperature of each printhead after printing each cell of said swath;

comparing the initial temperature of each printhead to the final temperature of each printhead in printing each cell, and determining a maximum temperature difference of each printhead in printing each of said cells;

measuring and logging number of ink drops printed during the printing of each cell of said swath; and

determining a new constant by calculating the quotient of the number of ink drops printed over the maximum temperature difference for the cell in which the printhead had the maximum temperature difference.

25. The computer readable storage medium in accordance to claim 24, said one or more computer programs further comprising a set of instructions for:

setting said new constant as said constant in response to said new constant being within a predetermined maximum constant value and a predetermined minimum constant value.